

Appln No. 09/834,403
Amdt date August 18, 2004
Reply to Office action of May 19, 2004

REMARKS/ARGUMENTS

Claims 1-28 will be pending in this application upon entry of the above-amendments. Claims 4-8 and 11-22 have been withdrawn from consideration. Claims 1, 2 and 9 have been amended. Claims 23-28 have been added. The amendments find full support in the original specification, claims, and drawings. No new matter has been added. Based on the above amendments and remarks that follow, Applicant respectfully requests reconsideration, reexamination, and an early indication of allowance of claims 1-8, 9-13, and 23-28.

Claims 2 and 9 have been amended as suggested by the Examiner to correct an informality. Withdrawal of the objection is respectfully requested.

Claims 9 and 10 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 2 and 3, respectively. Applicant submits that independent claim 2 differs substantially from independent claim 9, and is not unduly duplicative of claim 9. Independent claim 9 recites "extracting the edge data from the image data output from said image acquisition unit . . . and detecting a target using those of said extracted edge data existing in said specified area." (Emphasis added). In contrast, independent claim 2 recites "extracting the edge data from the image data output from said image acquisition unit only for said specified area, and detecting a target based on said edge data." (Emphasis added). Since in claim 2, edge data is extracted "only for said specified area," the processing time of claim 2 may be shorter than the processing time of claim 9.

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Accordingly, withdrawal of the objection under 37 CFR 1.75 is respectfully requested.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Wanielik et al. (U.S. Patent No. 6,414,712). Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wanielik in view of Raboisson et al. (U.S. Patent No. 5,706,355). Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wanielik in view of Raboisson and further in view of Holmes (U.S. Patent No. 5,430,450). Applicant respectfully traverses these rejections.

Wanielik discloses a radar arrangement and an image evaluation device, each of which provide target parameters to a data merging device for further processing. Wanielik discloses that the further processing of parameters from the image evaluation device may be "limited in the data merging device 6 to the solid angle sections in which target echo signals are detected by the radar arrangement". (Col. 3, lines 15-20). The further processing of parameters, according to Wanielik, includes "target classification, for example, by differentiating between the classes such as obstacle, preceding vehicle, roadway edge, traffic signals, and the like." (Col. 3, lines 3-7). However, nothing in Wanielik teaches or suggests that the processing of image data by the image evaluation device to generate the target parameters, which, according to the Examiner, could be modified by Raboisson to include edge data, is also limited to the solid angle sections. Thus, neither Wanielik nor Raboisson, alone or in combination, teach or suggest "[a] target detection system comprising: . . . a

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processing unit for specifying an area of image recognition based on the . . . output from said radar, extracting the edge data from the image data output from said image acquisition unit only for said specified area" as is recited in amended claim 1 and claim 2. (Emphasis added).

Claims 1 and 2 further recite the limitation of "detecting a target based on said edge data." Claim 9 similarly recites "detecting a target using those of said extracted edge data existing in said specified area." The Examiner acknowledges that Wanielik et al. "do not explain detecting the target based on edge data extracted from the image data." (Office action, P.4, ¶iv). The Examiner, however, makes up for this deficiency in Wanielik by relying on the teachings of Raboisson.

Raboisson discloses "extracting the road and detecting anomalies on the carriageways such as, for example, problems surfacing on the roadway, or objects or vehicles coming into the limited safety zone around the wheeled vehicle, on the basis of analysis of a sequence of road images." The analysis of the road images include the detecting of road edges. (See, Col. 5, lines 20-46). Thus, any detection of targets taught by Raboisson is based on the detection of road edges. Nothing in Raboisson teaches or suggests detecting objects based on the edge detection of the objects themselves. Accordingly, claims 1, 2, and 9 now in condition for allowance.

Claims 3 and 10 are also in condition for allowance because they depend on an allowable base claim, and for the additional limitations contained therein.

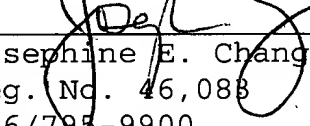
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Claims 23-28 are new in this application. Applicant respectfully submits that neither Wanielik, Raboisson, nor Holmes, alone or in combination, teach all of the limitations recited in these claims. Claims 23-28 are therefore in condition for allowance.

With respect to withdrawn claims 4-8 and 11-13, claims 4-8 depend directly on independent claim 2, and claims 11-13 depend directly on independent claim 9. Accordingly, Applicant respectfully requests allowance of claims 4-8 and 11-13 since they depend on an allowable base claim.

For the reasons stated above, Applicant respectfully requests an early indication of allowance of claims 1-8, 9-13, and 23-28.

Respectfully submitted,
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